
EDUCATION

NEW YORK UNIVERSITY

New York, NY

The Courant Institute of Mathematical Sciences

MS in Mathematics in Finance (expected – Jan. 2020)

- **Coursework:** Market Microstructure, OLS, Regularization, GLM, Random Forest, Boosting, Factor Models, PCA, Mean-Variance Optimization, Black-Litterman, Statistical Arbitrage, Market Impact Models, OOP in Java

FUDAN UNIVERSITY

Shanghai, China

BS in Computational Mathematics (Sep. 2014 – Jun. 2018)

- **Coursework:** Probability, Stochastic Calculus, Numerical Analysis, EM Algorithm, Hidden Markov Model, SVM, ODE, Black-Scholes, Monte Carlo Simulation, OOP in C++, Data Structures, Neural Network

EXPERIENCE

ACADEMY INVESTMENT MANAGEMENT LLC

New York, NY

Summer Quantitative Researcher (Jun. 2019 – Aug. 2019)

- Developed and backtested a daily rebalanced statistical arbitrage strategy on US equities using tick-level and intraday price-volume data
- Cleaned raw trade and quote tick data, identified and fixed data quality problems, and optimized the production scripts to reduce the runtime of tick data processing by 50%
- Implemented order imbalance calculation using Lee-Ready algorithm and Bulk Volume Classification algorithm
- Combined order imbalance with other cross-sectional factors and applied decile analysis and cross-sectional linear regression to test and enhance signal performance

QTG CAPITAL MANAGEMENT

Shanghai, China

Quantitative Research Intern, High Frequency Trading (Jan. 2017 – Aug. 2018)

- Studied the framework of low-latency trading system, including real time data consolidating, local signal processing and order message communicating with exchange
- Designed an event-driven trading framework in C++, considering order fill/ack/cancel feedback; developed a high-frequency making strategy for production on stock index futures with low liquidity and large spreads
- Improved the execution of an existing state-driven trading framework; developed a high-frequency taking strategy for production on commodity futures with high liquidity and high volatility
- Analyzed market conditions before and after taking positions according to trading records, and optimized entry and exit points based on direction prediction
- Built a simulator to match orders for backtest, considering order allocation and queue maintenance
- Tuned parameters in mock trading to improve strategy performance
- Applied mean-variance optimization to increase Information Ratio of a multiple-strategy portfolio

PROJECTS

NEW YORK UNIVERSITY

New York, NY

Tactical Asset Allocation Using Machine Learning, Capstone Project with BNP Paribas (Sep 2019 – present)

- Used supervised learning methods to predict monthly returns of different asset classes, including logistic regression, LDA, SVM, random forest and gradient boosting
- Generated views based on classification and regression, and applied Black-Litterman model to asset allocation

Market Impact Model (Mar. 2019)

- Cleaned TAQ data for S&P 500 stocks and performed non-linear regression to measure temporary and permanent market impact

Pairs Trading (May 2019)

- Performed real-time regression and cointegration test for pairs trading with high computation efficiency

FUDAN UNIVERSITY

Shanghai, China

Classification Algorithms in a Trend-Following Trading Strategy (Mar. 2017 – Dec. 2017)

- Wrote C++ scripts to obtain real-time level-1 quotation data from exchange
- Tested performance of technical indicators and CTA strategies on commodity futures, applied KNN, HMM, and SVM to predict price movements and developed a trend-following trading strategy based on MACD and SVM

COMPUTER SKILLS/OTHER

Programming Languages & Other Software: C++, Python, MATLAB, Java, R, C, LaTeX, Linux, Shell scripting

Languages: Mandarin (native), English (fluent)